## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : M. Krysiak

Serial No.:

09/510,782

Group Art Unit: 3643

Filed:

February 23, 2000

Examiner:

S. Nguyen

For:

FORTIFIED MULCH

**Assistant Commissioner for Patents** 

Washington, D.C. 20231

## **DECLARATION OF LEE HOFFMAN**

## I, Lee Hoffman declare as follows:

- 1. I have 26 years of experience in the field of agglomeration with Feeco International.
- 2. I have reviewed the application of the present invention.
- 3. I have reviewed the Spittle patent, 5,916,027.
- 4. In the world of agglomeration (particle size enlargement), there are four distinctively different types of processes: agitation, pressure, liquid and thermal.
- 5. The process of the present invention is classified as agitation, while the process discloses and taught by Spittle requires pressure agglomeration. This can be more clearly understood when the methods and equipment used to produce such products are explained below.
- 6. Agitation:
  - This process is defined as agglomeration by tumbling (growth). Particles are adhered together by use of balling drums, pans, cones and mixers via impact and tumbling. The resultant shape is a sphere.
- 7. Pressure
  - Pressure agglomeration utilizes methods such as extrusion presses, pelleting machines (pelletized), piston presses (tabletting), and roller presses (briquetting, compacting). The pellets are formed by pressure imparted upon the materials. The resultant shape is a cylinder for products made with pelleting machines and extrusion presses.
- 8. Liquid
  - With the liquid process, the liquid spray solidifies into a solid.
- 9. Thermal
  - Thermal agglomeration requires the addition of an external heat source to result in particle bonding. Typical applications include sintering, induration, calcining, and a form of flaking (different from Spittle). This thermal flaking requires a device that spreads a paste or melt as a thin film on the surface of a rotating drum: the film is then solidified by cooling water and scraped off the drum as flakes.
- 10. The Spittle process as defined is a multi-step process. The materials are combined, pelletized and then flaked. The Spittle process, though not entirely

14/ Neel 8/21/02 Holms outlined in the eferenced patent, requires the use ome form of pressure equipment to form the pellets. In order to form a flake from a pellet, the pellet must be sheared to form thin flakes with ancillary equipment. In contrast, the mulch agglomeration process of the present invention is a single step tumble process that utilizes a high speed mixer, not pressure, to form granules.

- 11. The process described in the Spittle patent from Column 3 lines 6-30 is a pressure agglomeration technique.
- 12. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent application to which it relates or any patent issued thereon.

Dated: <u>8/15/02</u>

ee Hoffman